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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|--|-------------|--------------------------|---------------------------|------------------|
| 09/480,584 | 01/10/2000 | Stephen Edward Hettinger | 9D-HR-19167-HETTINGER | 4498 |
| 7590 | 11/07/2005 | | | |
| John S Beulick Armstrong Teasdale LLP One Metropolitan Square Suite 2600 St. Louis, MO 63102 | | | EXAMINER TAMAI, KARL I | |
| | | | ART UNIT 2834 | PAPER NUMBER |
| DATE MAILED: 11/07/2005 | | | | |

Please find below and/or attached an Office communication concerning this application or proceeding.

H.A

Office Action Summary

Application No.

09/480,584

Applicant(s)

HETTINGER, STEPHEN EDWARD

Examiner

Tamai I.E. Karl

Art Unit

2834

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 07 September 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-18 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-14, 17 and 18 is/are rejected.
- 7) ☒ Claim(s) 15 and 16 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Objections

1. The objection to Claim 9 is withdrawn.

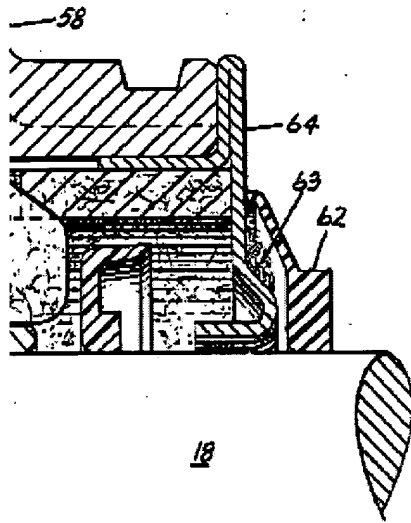
Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

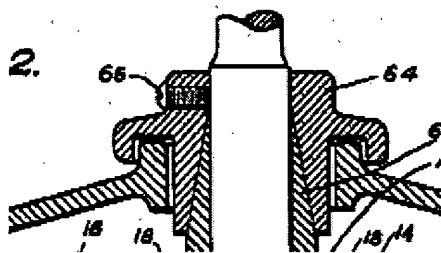
(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. The rejection of Claims 1, 2, 4, 5, 8, 11, and 13 over Otto is withdrawn.
4. Claims 1, 4, 8, 10, 11, and 14 are rejected under 35 U.S.C. 102(b) as being clearly anticipated by Cunningham (US 3885176). Cunningham teaches a shield 62 having a cylindrical shroud encompassing a portion of the bearing housing 64 (inherently part of the motor housing), and a hub which obstructs the opening in the shroud to prevent dirt from getting into the motor. Cunningham teaches the opening and the hood both are positioned along the shaft axis. Cunningham teaches the seals 61 engaging the shaft sufficiently tightly to rotate therewith. Cunningham teaches the hub and shroud are integrally molded, and adapted to flex around the shaft.



Cunningham seal 62 endcompassing the endcap 64 of the housing.

5. The rejection of Claims 1, 4, 5, and 8-10 are rejected under 35 U.S.C. 102(b) as being clearly anticipated by Else (US 1992818). Else teaches a shield 29 having an shroud 32 and a hub which obstructs the opening in the shroud to prevent dirt from getting into the motor. The hub being tapered the center of the opening to mate with a collar 63 on the shaft. Else teaches the hub and shroud are integrally formed.



Else shows the hub portion at 64 secured to the shaft with a hood portion extending opposite the hub and enclosing a portion of the house 61. The hub portion being frustroconical to mate with the collar 63 on the shaft, which prevents dust and dirt from getting into the housing (col. 2, line 15).

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claims 2, 5, 9, 13, and 17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Cunningham (US 3885176), in further view of Otto (US 4287662). Cunningham teaches every aspect of the invention except opening being tapered with the output shaft stretching around the shaft to form an interference fit. Otto teaches a shield having an hub 45 with tapers in a frustroconical cross sections towards the opening to grippingly engages the shaft 33. Otto teaches the sleeve gripping the shaft (inherently adapted to flex/stretch around the shaft. It would have been obvious to a person of ordinary skill in the art at the time of the invention to construct the motor of Cunningham with the hub tapered and stretching around the shaft to grippingly engage the shaft as taught by Otto.

8. Claim 3, 6, 7, 12, and 17 are rejected under 35 U.S.C. 102(b) as being clearly Cunningham, in further view of Braun (US 6384501). Cunningham teach every aspect of the invention except the slots, including three slots 1d, on the hub which expand during insertion of the shaft. Braun teaches the hub being frustroconical at the opening

Art Unit: 2834

1e. Braun teaches slots are included on the hub with at least three slots on the hub to provide localized force during press fitting of the shaft. It would have been obvious to a person of ordinary skill in the art at the time of the invention to construct the dust shield of Cunningham or Otto with the slots of Braun to assure proper positioning of the dust shield near the housing.

9. Claim 18 is rejected under 35 U.S.C. 102(b) as being clearly Cunningham, in further view of Lakin (US 4800309). Cunningham teach every aspect of the invention except the hub including a plurality of spring members exerting a force on the output shaft. Lakin teaches a hub with a plurality of spring fingers to firmly hold rotor spacer 36 on the shaft. It would have been obvious to a person of ordinary skill in the art at the time of the invention to construct the dust shield of Cunningham with the plurality of spring fingers of Lakin to firmly hold dust shield in place as taught by Lakin.

Allowable Subject Matter

10. Claims 15 and 16 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Response to Arguments

11. Applicant's arguments with respect to the pending claims have been considered but are moot in view of the new ground of rejection. Applicant's arguments regarding the method steps of assembling the motor are not persuasive because the steps are inherently to assemble the disclosed motor of Cunningham and Else. Applicant's arguments regarding Else are not persuasive, for the reasons set forth above and shown in the drawing above. Applicant's argument regarding Braun is not persuasive. Braun clearly teaches securing a hub to a motor shaft without pretensioning, with high accuracy and capable of mass production (col. 1, line 50). The combination is well motivated and is not based on hindsight because the motivation is set forth in Braun, not from the Applicant's application (see *In re McLaughlin*, 443 F.2d 1392, 170 USPQ 209 (CCPA 1971), holding that it must be recognized that any judgment on obviousness is in a sense necessarily a reconstruction based upon hindsight reasoning. But so long as it takes into account only knowledge which was within the level of ordinary skill at the time the claimed invention was made, and does not include knowledge gleaned only from the applicant's disclosure, such a reconstruction is proper).

Conclusion

12. Applicant's amendment necessitated the new grounds of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

Art Unit: 2834

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

13. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Karl I.E. Tamai at (571) 272 - 2036. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mr. Darren Schuberg, can be reached at (571) 272 - 2044. The facsimile number for the Group is (703) 872 - 9306. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Karl I Tamai
PRIMARY PATENT EXAMINER
November 2, 2005



KARL TAMAI
PRIMARY EXAMINER